

MASIMO.007C2

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Diab et al.  
Serial No. : 08/943,511  
Filed : October 6, 1997  
For : SIGNAL PROCESSING  
APPARATUS  
Examiner : Unknown

Group Art Unit 3736

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

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GROUP 3300

Dear Sir:

Prior to examination on the merits, please add the following new claims.

IN THE CLAIMS:

51. A physiological monitor comprising an input configured to receive at least two measured intensity signals generated by the detection of multiple wavelengths of light transmitted through body tissue, said intensity signals each having a portion indicative of at least one physiological parameter;

a Kalman filter responsive to said intensity signals, said Kalman filter attenuating selected frequencies present in said physiological signal, said frequencies determined to comprise substantially noise in said physiological signals; and

a processor responsive to the output of said filter to derive a physiological parameter based upon said output of said Kalman filter.

52. The pulse oximeter of Claim 51, wherein said physiological parameter comprises blood oxygen saturation.